DOCUMENT RESUME

ED 251 878 CS 504 787

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TITLE University Broadcast Laboratories: Cost, Upkeep, Use.
PUB DATE No/ 84
NOTE 21p.; Paper presented at the Annual Meeting of the Speech Communication Association (70th, Chicago, IL, November 1-4, 1984).
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Audiovisual Centers; *Communication Research; *Equipment Maintenance; Financial Support; Higher Education; Learning Laboratories; *Program Content; Purchasing; Radio; Telecommunications; Television
IDENTIFIERS *Broadcast Journalism; *Broadcast Laboratories

ABSTRACT

Broadcast program directors from 157 colleges and universities responded to a survey to determine how schools outfit, maintain, upgrade, and fund audio and video broadcast labs and how many students use them. Among the results indicated by the respondents are the following: (1) approximately half reported affiliation with either a closed-circuit station or some other facility that was neither a public broadcasting nor an independent station (usually a local cable system or student-operated noncommercial station); (2) over three-fourths indicated that they purchased equipment for labs as necessary, and slightly less than half reported maintaining this equipment as necessary rather than on a regular basis; (3) no significant relationship existed between funding sources and audio or video equipment buying schedules, although a relationship did exist between funding sources and the yearly amounts invested for replacement of lab equipment; and (4) the number of students using the labs seemed to be relatively large or small perhaps depending on the number of laboratory course offerings, but there was no significant relationship between the number of students using the labs and the amount of money spent to replace equipment. (A copy of the survey instruments and the tables of results are included.) (HTH)

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ED251878

University Broadcast Laboratories:

Cost, Upkeep, Use

Submitted to the Seventieth Annual Meeting

Speech Communication Association

Chicago, Illinois, November 1-4, 1984

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A complex and explosive technology influences both theoretical and practical aspects of broadcasting. Therefore, as indicated by 97.9% of the program heads responding to the survey for this study, many universities, which offer a radio and television major, teach hands-on audio and video courses. Usually, this instruction occurs in on-campus laboratories, which must be outfitted with the proper apparatus; maintained, and upgraded to give students both practical theoretical knowledge before they enter the job market. Schools can create laboratories in many ways. Departments can fund and develop them, or share funding or facilities with local broadcast or cable companies. Program heads can hire their own crews to maintain equipment; they can use AV department staffs, or engineers from nearby stations. They can spend large sums to outfit studios; they can spend small ones. With so many options, departments may have difficulty determining their best alternatives for laboratory development. One one solution to this problem is to examine choices other schools have made, to see what laboratory policies and procedures have worked best in the past. Therefore, this study will attempt to describe how universities outfit, maintain, and upgrade audio and video labs; how schools fund them, how many students use them per week, and how many hours a day they are open. Recommendations for the development, funding, care, and use of lab facilities will be made.

METHODOLOGY

A survey was sent to broadcast program heads from the entire population (309) of schools having radio and television, mass communications, or broadcasting programs, as identified by the 1983 edition of Lovejoy's College Yearbook. Two weeks later, a follow-up survey was mailed to those who had not returned the first one. All together, 157 schools from forty-one states answered, for a response rate of fifty percent. The survey and data tables can be found at the end of this paper. All figures have been rounded to the nearest whole number.

Universities reported what lab courses they taught; if they had local radio, television, or cable drops on campus; how they funded and maintained their labs; how often maintenance occurred; how often they replaced equipment; and what percentage of lab budget came from student fees. Department heads also reported both total lab hours per day, and numbers of students using those facilities. Chi-square analysis examined relationships between the number of people using equipment and interval of audio and video maintenance; the number of hours of lab use and the interval of audio and video maintenance; the number of people using the labs and the yearly amount spent to replace equipment; the number of lab hours and the yearly amount spent to replace equipment; funding source and interval of buying audio or video equipment; and funding source and the amount of money spent to replace equipment; and station type on campus and type of

personnel maintaining equipment. The same treatment was used to find both relationships between multiple budgeting sources, and relationships between multiple station type at schools.

RESULTS

Eighty-four percent of the respondents said they taught both audio and video. Eight percent taught video only; seven percent taught audio but not video. Twenty-nine percent reported having a closed-circuit station on campus; twenty-three percent an independent station, eighteen percent a National Public Radio affiliate, and twelve percent a public television affiliate. Seven percent had some other type of broadcast facility on campus. Seven percent had no station.

Ninety-two percent of the program heads reported that they bought equipment for video labs. Eight percent said they did not. Seventy-seven percent stated that they purchased video apparatus as needed. Fifteen percent bought it at yearly intervals, point-six percent purchased it every two years, one percent bought it at three year intervals. Four percent bought it at other intervals.

Thirty-two percent of the schools reported video equipment and studios to be worth less than one-hundred-thousand dollars. Twenty-nine percent valued their labs at more than three-hundred-thousand. Twenty-five percent valued labs between two-hundred-thousand and three-hundred-thousand dollars, ten percent estimated value at some other

figure, and two percent did not know the value of their labs. This estimate included only studios and equipment, not building facilities.

Thirty-eight percent reported the yearly cost of maintaining video labs to be under five-thousand dollars. Twenty-one percent spent over fifteen-thousand, and eighteen percent spent between five and fifteen-thousand dollars a year to keep labs running. Eleven percent spent between eleven and ten-thousand dollars to maintain labs, and nine percent did not know how much they spent.

Seventy-nine percent of the people responding said they performed maintenance on video equipment as needed. Seven percent overhauled machines every three months, and three percent worked on them every six months. Five percent maintained them on some other schedule.

Ninety-two percent of the respondents said they bought equipment for audio labs. Seven percent did not. Eighty-three percent bought equipment as needed. Twelve percent bought it yearly, two percent bought it on some other schedule, one percent purchased it every three years, and one percent did not know how often they bought equipment.

Fifty-three percent said their audio labs were worth fifteen-thousand dollars or more; seventeen percent valued their labs between eleven and fifteen-thousand dollars. Seventeen percent estimated worth between eleven-thousand and fifteen thousand. Nine percent said their labs were worth less than five-thousand dollars, and four percent had

no idea of their labs' worth.

Thirty-four percent of the schools spent a thousand dollars or more to maintain audio labs. Twenty-eight percent spent between six-hundred and a thousand dollars, twenty-four percent spent between two-hundred and five-hundred dollars to keep audio labs running. Two percent spent less than one-hundred dollars a year, one percent spent an unspecified amount, and eight percent had no idea how much they spent per year to maintain audio labs.

Forty-four percent of the respondents said they maintained audio equipment as needed; twenty-nine percent maintained it every three months, six percent every six months, and two percent every nine months. Seven percent did not know at what intervals they maintained audio equipment.

Forty-five percent spent under five-thousand dollars a year to replace audio or video equipment, eighteen percent spent either six to ten-thousand or more than fifteen-thousand dollars to replace both kinds of equipment. Nine percent spent between eleven and fifteen-thousand dollars. Three percent spent some other amount, and five percent did not know how much they spent to replace equipment.

Fifty-eight percent of the respondents said they funded labs through departmental budgets. Twenty-three percent had some other kind of funding. Eight percent had federal grants, and seven percent had state grants. One percent of the respondents did not know their budgeting source.

Departments maintained forty-one percent of the labs; university AV staffs took care of twenty-seven percent; and other personnel looked after twenty-four percent. Equipment manufacturers maintained six percent of the labs. Five-tenths of a percent of the respondents did not know who maintained their labs.

Thirty-one percent of the respondents either said between sixteen and thirty, or more than sixty students used labs per day. Eighteen percent reported either less than fifteen, or thirty-one to sixty students using the labs per day.

Fifty-one percent of the respondents said students used labs more than eight hours a day. Twenty-three percent said that students used labs two to four hours a day. Twenty percent reported students using labs five to eight hours a day, Five percent stated that students used labs less than an hour a day.

Seventy percent of the schools reported having no student lab fees. Fifteen percent had fees of under twenty-five dollars. Eight percent charged between twenty-five and fifty dollars to use labs, and five percent charged fifty dollars or more.

Seventy-six percent said that no student fees paid for lab maintenance. Eight percent reported that student fees paid one to twenty-percent of lab maintenance. Four percent said that student fees paid forty-percent of lab fees, and nine percent had no idea how much of the lab maintenance fee

students paid.

When subjected to Chi-square analysis with significance at the .05 level, no relationship was found between station types on campus when schools reported more than one. Neither was there a relationship between types of lab funding sources when program heads indicated using more than one. Funding source was neither related to audio nor to video equipment buying schedule. The number of students using labs per day neither related significantly to equipment replacement cost schedule nor to audio maintenance schedule. The number of hours per day that labs were open did not relate to equipment replacement cost schedule.

Chi-square analysis showed a significant relationship at the .05 level between funding source and equipment replacement cost schedule; and a significant relationship between the number of hours labs were open and equipment replacement schedule. There was a significant relationship at .08 between station affiliation and maintenance personnel. In several cases, categories were collapsed to get adequate date into cells for treatment. Some were eliminated if they contained two few responses to indicate a relationship. It might also be noted that Chi-square marginals often exceed the total number of surveys returned. This is because some people either had more than one answer or no reply to a given question.

The relationships between the number of hours labs were open and video maintenance schedule, and between the number

of people using labs per day and video maintenance schedule could not be determined because of insufficient data in many cells.

DISCUSSION

About half the respondents reported affiliation with either a closed-circuit station or some other facility that was neither public broadcast nor independent station. Comments on the survey usually indicated this other facility to be a local cable system, or student-operated non-commercial station. A little more than three-fourths of those responding said they bought and maintained equipment for video labs as often as necessary.

The value of video labs ranged considerably, as did amount to maintain video equipment. Judging from survey comments, the variation may represent differing budget approaches and constraints across programs. For example, some respondents indicated that they bought or maintained equipment when they could find money to do so. Others allocated money to various areas of lab maintenance on a rotating basis.

Over three-fourths of respondents indicated that they bought equipment for audio labs as necessary. A little less than half reported maintaining this equipment as necessary; a little more than one-fourth said they maintained it every three months. The audio maintenance schedule seems to differ form the video maintenance schedule. Perhaps the fragile nature of video equipment requires more constant

upkeep, or perhaps its relatively complicated technology requires more upkeep than does audio's.

As with video, worth and maintenance schedule of of audio labs varied. The amount of money to replace audio and video equipment varied across campuses. Once more, this may reflect different approaches to budgeting. Some respondents explained that they had multiple funding sources, such as state and federal grants, gifts, fund raisers, and donations. Half the departments responding contributed funding for half the labs; other sources contributed funding to a little less than one-fourth of the labs.

No significant relationship existed between funding source and audio or video equipment buying schedule. However, a relationship did exist between funding source and amount invested per year to replace video or audio lab equipment. When departments funded labs, it appeared that more people indicated they spent less than five-thousand dollars per year on equipment replacement, than indicated they spent between six and fifteen-thousand dollars, than indicated they spent more than fifteen-thousand dollars. When people had federal and state grants, they either spent less than five or more than fifteen-thousand dollars. This might suggest that grants either supplement departmental funds, or provide minimum support for labs funded no other way.

When other sources funded labs, more people indicated spending less than five-thousand dollars to replace

equipment than indicated spending any other amount. Since people marking the "other" category on the survey indicated those sources to be gifts, or proceeds from fund-raisers, it is reasonable to propose that such contributions make up a small budget, or a small portion of one to allot to equipment replacement.

A little less than half the respondents said that departments maintained their own equipment; the rest of the respondents scattered answers between AV departments and 'other', usually indicating that person to be a broadcast or department engineer. A minority used manufacturers to maintain equipment.

While the relationship between maintenance personnel and station type on campus was not significant at .05, its significance level of .08 makes it worth mentioning. It appears that respondents reported maintenance by departments, AV staffs, and others with independent stations on campus. They reported contributions to upkeep by departments and AV staffs when schools had on-campus closed-circuit stations. With NPR or PBS stations on campus, respondents reported department engineers overhauling labs. A very cautions interpretation might suggest relative independence of public stations from broadcast programs. It might also suggest that closed circuit, or independent stations might be student and laboratory-related. Survey comments reinforce this idea.

Numbers of students using labs seemed to be relatively

large or relatively small perhaps indicating that schools have either very large laboratory course offerings or very small ones. There was no significant relationship between the number of students using a lab per day and the amount of money spent to replace equipment. This could indicate that professors are doing an adequate job of teaching people to respect equipment, or that engineers maintain equipment well, on a proper schedule.

Labs receive a moderate to heavy amount of traffic. About half the sample said students used the labs more than eight hours a day, with a little less than a quarter saying reporting use at two to four, or five to eight hours. A minority said students used the lab less than an hour a day. From Chi-square analysis, it appears that as hours of use increased, so did the number of people indicating that they spent either six to ten-thousand dollars; eleven to fifteen thousand dollars; or over fifteen thousand dollars to replace equipment. People spending less than five-thousand dollars appeared to have labs open two to four or over eight hours a day. This might suggest that well-used, worn out equipment is replaced when the money is around to replace it. People who do not have money to replace equipment maintain what they have as best they can.

About three-fourths of the sample responded as having no student lab fee. The rest of the responses indicated no particular consenses on fees, scattering between less than twenty-five dollars, twenty-five to fifty dollars, or over

fifty dollars. A little over three-fourths of the sample indicated that lab fees did not pay for lab maintenance, suggesting that a few schools put lab fees to some other use. However, no comments revealed what it might be. When lab fees did support maintenance, as they did in a minority of cases, students either paid between one and twenty percent or over forty percent of lab costs.

While some questions in this study had one predominant answer, many had varied responses. This may suggest that within general parameters, schools maintain, upgrade, and use labs on schedules that suit their own budgets, personnel, and particular program configurations. It is suggested that anyone responsible for developing a laboratory facility or policy carefully consider the needs and goals of his/her particular program while doing so.

TYPE OF BROADCAST STATION ON CAMPUS

NPR AFFILIATE	18%
PBS AFFILIATE	12%
NO BROADCAST STATION	7%
CLOSED-CIRCUIT STATION	29%
INDEPENDENT STATION	23%
OTHER*	7%

*added because of comments on survey

PROGRAMS HAVING BOTH AUDIO AND VIDEO LAB FACILITIES

AUDIO	7%
VIDEO	8%
BOTH	84%

PROGRAMS BUYING EQUIPMENT FOR VIDEO LABS

YES	92%
NO	8%

INTERVALS AT WHICH PROGRAMS BUY VIDEO EQUIPMENT

AS NEEDED	YEARLY	2 YEAR	THREE YEAR	OTHER
77%	15%	.6%	1%	4%

WORTH OF VIDEO LABS IN THOUSANDS OF DOLLARS

--$100	$200-300	$300+	OTHER	DON'T KNOW
32%	25%	29%	9%	1%

COST PER YEAR TO MAINTAIN VIDEO LABS IN THOUSANDS OF DOLLARS

-$5,000	$5-10	$11-15	$15+	DON'T KNOW
38%	18%	11%	21%	10%

INTERVALS AT WHICH PROGRAMS MAINTAIN VIDEO EQUIPMENT

YEARLY	9 MO.	6 MO.	3 MO.	AS NEEDED	OTHER
4%	0	3%	7%	79%	5%

PROGRAMS BUYING EQUIPMENT FOR AUDIO LABS

YES	92%
NO	7%

INTERVALS AT WHICH PROGRAMS BUY AUDIO EQUIPMENT

AS NEEDED	YEARLY	2 YEAR	3 YEAR	OTHER	DON'T KNOW
83%	12%	0	1%	3%	1%

WORTH OF AUDIO LABS IN THOUSANDS OF DOLLARS

--$5,000	$6-10,000	$11-15,000	$15+	DON'T KNOW
9%	14%	17%	53%	4%

COST PER YEAR TO MAINTAIN AUDIO LABS

-100	$2-500	$600-1,000	$1,000+	OTHER	DON'T KNOW
2%	24%	29%	34%	1%	9%

INTERVALS AT WHICH PROGRAMS MAINTAIN AUDIO EQUIPMENT

YEARLY	9 MO.	6 MO.	3MO.	AS NEEDED*	DON'T KNOW
9%	2%	6%	29%	44%	7%

*category developed in response to comments on survey

YEARLY AMOUNT TO REPLACE ALL EQUIPMENT IN THOUSANDS OF DOLLARS

--$5,000	$6-10,000	$11-15,000	$15+	OTHER	DON'T KNOW
45%	18%	9%	18%	5%	5%

FUNDING SOURCE FOR AUDIO OR VIDEO LAB EQUIPMENT

DEPARTMENT	58%
FEDERAL GRANT	8%
STATE GRANT	7%
OTHER	23%
DON'T KNOW	1%

PERSONNEL INSTALLING AUDIO OR VIDEO LAB EQUIPMENT

DEPARTMENT	41%
MANUFACTURER	6%
AV STAFF	27%
OTHER	24%
DON'T KNOW	.5%

NUMBER OF STUDENTS USING AUDIO AND VIDEO LAB PER DAY

--15	16-30	31-60	60+	DON'T KNOW
18%	31%	18%	31%	0

NUMBER OF HOURS PER DAY LABS ARE USE BY STUDENTS

--1	2-4	5-8	8+	DON'T KNOW
5%	23%	20%	51%	0

STUDENT LAB FEE

NONE	--$25	$25-50	$50+	DON'T KNOW
70%	15%	8%	5%	0

PERCENTAGE OF LAB MAINTENANCE FEE PAID BY STUDENTS

NONE	1-20%	21-40%	40%+	DON'T KNOW
76%	8%	0	4%	9%

CHI-SQUARES

STATION TYPE BY STATION TYPE

	NPR affiliate	PBS AFFILIATE
Closed-Circuit/Other	13	5
Independent	6	6

CHI-SQUARE = 1.5 p>.05

STATION TYPE BY STATION TYPE

	NPR AFFILIATE	CLOSED-CIRCUIT/OTHER
PBS AFFILIATE	13	6
INDEPENDENT	3	15

CHI-SQUARE = 10.0 p>.05

STATION TYPE BY STATION TYPE

	NPR AFFILIATE	OTHER
PBS AFFILIATE	13	24
OTHER	19	17

CHI-SQUARE = 2.3 p>.05

FUNDING SOURCE BY FUNDING SOURCE

	DEPARTMENT	FEDERAL GRANT
OTHER	45	3
STATE GRANT	13	6

CHI-SQUARE = 7.5 p>.05.

FUNDING SOURCE BY FUNDING SOURCE

	DEPARTMENT	STATE GRANT
FEDERAL GRANT	17	5
OTHER	8	3

CHI-SQUARE = 6.2 p>.05

FUNDING SOURCE BY VIDEO PURCHASE INTERVAL

	DEPARTMENT	FED/STATE GRANT	OTHER
AS NEEDED	117	33	37
YEARLY	18	4	6

CHI-SQUARE = .204 p>.05

FUNDING SOURCE BY AUDIO PURCHASE INTERVAL

	DEPARTMENT	FED/STATE GRANT	OTHER
AS NEEDED	115	30	39
YEARLY	19	6	7

CHI-SQUARE = .14 p>.05

NUMBER OF PEOPLE USING LAB BY AUDIO MAINTENANCE INTERVAL

	-15	16-30	30-60	60+
AS NEEDED	7	28	11	27
3 MONTHS	9	17	8	17

CHI-SQUARE = 3.7 p>.05

1a. Do you teach audio or video production courses in your radio/television or broadcasting program?

_____Yes _____No

1b. If yes, are they:

_____Audio _____Video _____Both

IF YES, PLEASE ANSWER QUESTIONS THAT PERTAIN TO THE TYPE OF LAB YOU HAVE.

2. On campus, do you have a:

_____NPR Affiliate _____Closed circuit station

_____PBS Station _____Independent Station

_____No station

3a. Do you buy equipment for your video lab?

_____Yes _____No

3b. If yes, do you buy it:

_____As necessary _____Every 3 years

_____Once a year _____Don't know

_____Every 2 years

4. Approximately how much do you consider your video lab to be worth?

_____Less than $100,000 _____Other

_____$200,000-$300,000 _____Don't know

_____$300,000+

5. How much does it cost per year to maintain video equipment?

_____Less than $5,000 _____$15,000+

_____$5,000-$10,000 _____Don't know

_____$11,000-$15,000

6. How often is maintenance performed on video equipment?

_____Every year _____Every 3 months

_____Every 9 months _____When necessary

_____Every 6 months

7a. Do you buy equipment for your audio lab?

_____Yes _____No

7b. If yes, do you buy it:

_____as necessary _____Every 3 years

_____Once a year _____Don't know

_____Every 2 years

8. Approximately how much do you consider your audio lab to be worth?

_____Less than $5,000 _____$15,000+

_____$6,000-$10,000 _____Don't Know

_____$11,000-$15,000

9. How much does it cost per year to maintain audio equipment?

_____Less than $100 _____$1,000+

_____$200-$500 _____Don't know

_____$6,00-$1,000

10. How often is maintenance performed on audio equipment?

_____Every year _____Every 3 months

_____Every 9 months _____Don't know

_____Every 6 months

11. Approximately how much money per year is spent on video or audio lab equipment replacement?

_____Less than $5,000 _____$15,000+

_____$6,000-$10,000 _____Don't know

_____$11,000-$15,000

12. How is your lab equipment funded (CHOOSE AS MANY AS APPLY)

_____Department budget _____Other

_____Federal grant _____Don't know

_____State grant

13. Who installs and maintains equpment for either audio or video labs?

_____Department _____Other

_____Manufacturer _____Don't know

_____AV Staff

14. How many students use either the audio or video labs per day?

_____Less than 15 _____16-30 ____30-60 ____60+ ____Don't know

15. How many hours a day may students use either the audio or video labs?

____One or less ____2-4 ____5-8 ____8+ ____Don't know

16. What is the student lab fee?

____No fee ____Less than $25 ____$25-50 ____$50+ ____Don't know

17. What percentage of video or audio lab maintenance fee do students pay?

____None ____1%-20% ____20%-40% ____40%+ ____Don't know

THANK YOU FOR YOUR TIME. YOU WILL RECEIVE A COPY OF THE RESULTS OF THE SURVEY.